



WHAT IS THE LINK BETWEEN NUTRITION, PHYSICAL ACTIVITY AND ACADEMIC ACHIEVEMENT?

Nutrition is the logical first step in enhancing a student's ability and readiness to learn. Well nourished, healthy students come to class mentally and physically prepared to learn. Inadequate nutrition (this may include hunger, but also, a lack of key nutrients within a diet of adequate calories) often leads to: behavior problems, decrease in ability to concentrate, decline in short term memory, fatigue, and reduced resistance to infection. Research shows a direct relationship between eating a nutritious breakfast and improved academic performance. Kids who eat breakfast excel in the classroom, behave better at school, and are less likely to be absent or late to school.

Nutrition is also a key component in building good citizenship. Eating behaviors affect the development of caring, responsible, and successful students. In addition to meeting physiological needs, sound nutrition is also important in building social values, esteem and respect.

Physical activity is also essential for student achievement. Studies show a connection between physical activity and increased levels of alertness, mental function and learning. Physical activity increases blood flow to the brain, which brings more glucose (brain food) to the brain, while releasing endorphins, which have a positive effect on mood. Physical activity also leads to life-long health benefits such as the building of strong bones, maintaining a healthy body weight, and decreasing risk of chronic diseases including cancer, diabetes and heart disease.

The latest research documents that:

- schools with intense physical activity programs see improvement in academics such as: increased concentration, and improved math, reading and writing skills, along with less disruptive behavior.¹
- higher achievement is associated with higher fitness levels for 5th, 7th, and 9th graders², and
- providing more opportunity for physical activity leads to increased test scores.³

Why do Montana schools need to take action?

Unfortunately, children's eating and physical activity habits are not where they should be as the following national and Montana statistics reveal.

Only 2 percent of children meet the dietary goals of the Food Pyramid.⁴ Less than 17 percent of Montana high school students eat the recommended daily servings of fruit and vegetables.⁵

Teens drink twice as much soda as milk.⁴ Per capita consumption of carbonated soft drinks increased 61 percent in the last 30 years. Of Montana high school students, only 15 percent of females and 30 percent of males reported consuming the recommended daily milk group servings.⁵

Nearly half of 12–21 year olds are not physically active on a regular basis.⁴ Forty percent of Montana high school students do not meet their daily recommended amount of physical activity.⁵

Childhood obesity is a national epidemic. As a result, adult diseases are now occurring in children. Type II diabetes has increased dramatically in children, especially those who are overweight. A recent study in *Pediatrics* reported that 25 percent of children ages 5–10 have one or more adverse cardiovascular disease risk factors. This risk doubles amongst overweight children of the same age.⁴